Next-generation ERM system: 'ERM Essentials' in context

With the emerging trend to migrate collections to 'e' only, it is becoming increasingly important for librarians to be able to manage e-resources effectively. Electronic resource management (ERM) systems are intended to assist librarians with simplifying their daily management tasks, but many librarians have reported that the effort to input resource data can be overwhelming, leading to increased staff workload and resulting in an ERM that cannot be implemented and used.

The next-generation ERM system 'ERM Essentials', created by EBSCO, is explained and reviewed as an example of a system that can be easily implemented with readily available data from customers' order history. Some of the drawbacks with earlier systems are considered, and the hopes for future systems with added functionality are explored.



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Next-generation ERM system

Electronic resource management (ERM) systems first appeared on the market in 2004. Since then, various ERM systems have been released with the aim of assisting in the management of libraries' ever increasing e-resource collections. However, librarians often find that it can be difficult to implement and actually use their purchased ERM system due to complexities involved with populating the system with data about their collection. In order to begin using an ERM system for tasks such as managing order information, organizing licenses, tracking activation workflows and managing renewals, librarians must first enter their collection data into the system. This first step often becomes the never-accomplished step, leaving many ERM systems purchased but not implemented.

After reviewing the general state of e-resource management and collecting months of user feedback while working closely with librarians, at EBSCO we created ERM Essentials as our next-generation ERM for e-resource management. As part of the serials supply chain, it seemed a logical next step to create an ERM system that used customers'

subscription order history to provide an immediate starting point.

Development process

Customer feedback about fundamental needs for e-resource management was the first motivation for creating a new ERM system. Additionally, as a subscription agent, the company was in a position to create an ERM product that not only addresses fundamental needs but also automates many of the processes and management tasks associated with e-resource management. A next-generation ERM must address three essential e-resource management needs: 1) data population, 2) integration with other existing library tools, and 3) the need to evolve.

We began by gathering data from customers to discover what is required for efficient e-resource management. As part of an ongoing collection of input from our customer base, we created a focus group of librarians who deal with e-resources on a daily basis to provide insight on the overall design and data structure. From this group, our beta test group evolved. We worked closely with more than 25 libraries worldwide to identify features and functionality that librarians find vital to e-resource management.

Once we prototyped the basic concepts, we embarked on a multi-phase approach to testing, starting with an initial technology preview in early 2009, followed by more in-depth beta testing beginning in October 2009. The design was influenced by input from our beta testers, resulting in significant improvements being introduced during the course of its development from early 2009 to the initial release in January 2010.

In addition to working directly with the library community, we relied on both internal and external resources to identify necessary e-resource functionality that librarians need. We used our own industry knowledge and reviewed what is currently available in other ERM systems. We leveraged the work outlined by the E-Resource Management Initiative (ERMI) to define the most relevant data fields needed for e-resource management. We then designed our system to automatically populate approximately 100 different data fields for EBSCO e-journal and e-package orders that are relevant to e-resource management. Auto-population of vital data elements allows us to offer an ERM system that is immediately usable for e-resource management and different from other ERM systems offered in the market.

An ERM system needs to work with all e-resources, including e-journals, e-books, e-packages, and databases, to simplify management and streamline workflow. Management of e-resources becomes increasingly complex with different content types as well as licensing terms, access models and coverage details that must be clearly indicated to users. There is a growing trend to migrate library collections to 'e' only as a way to lessen the economic burden libraries are currently experiencing. Over the next two years, libraries are expected to face their largest and most significant budget cuts made in years, making effective e-resource management that saves time and reduces staff workload more important than ever. These facts as well as other current library issues were taken into consideration while designing and developing the next-generation ERM.

Key features

ERM Essentials is prepopulated with a customer's order history for e-journals and e-packages acquired through EBSCO. This readily available e-resource data allows the ERM system to be implemented and used immediately, reducing the challenge of data population faced with other ERM systems. Simple tools allow for adding data about other resources, providing for management of the library's entire e-resource collection. The company strove to create an ERM system that does not impose additional demands on librarians' time – a system that does not require substantial training; beta testers overwhelmingly reported that they found it intuitive to use, and it adopts a look and feel that is familiar to librarians already using EBSCONET.

We made design decisions geared toward versatile and simple functionality, such as flexible field management that allows administrators to rename or re-order data fields. Basic view and edit functionality for collection and order details allows librarians to see and update information based on whether the data was automatically populated or the data was edited locally. A full-featured system should offer not only essential functionality but also other specialized features tailored to the needs that are most often alluded to in user feedback. Highlighted below are several system features that simplify e-resource management:

- storing supply terms such as cost and invoice information, order number, fund code, subscription terms and coverage
- maintaining licence details and terms of use in one location, as well as links to licences for further reference
- managing access credentials and other authentication and administrative details from one location
- ability to enter and share notes among staff members for every resource
- generating reports showing current status of each resource with key details needed for establishing access
- functionality to assign activation work to staff members through reminders and tasks
- recording staff input to assist in evaluations and decision-making.

Integration

Some of the systems that our beta testers were familiar with did not appear to offer a full range of functionality. While standard library management systems are designed to handle individual resources, both print and electronic, many of these systems cannot handle large packages of e-resources. Our ERM system allows for simple e-book and e-journal management as well as e-package management, which is often the most difficult content item to manage across platforms. Data inheritance rules for e-packages result in shared data for titles within an e-package, maximizing efficiency of management for e-resources by allowing librarians to easily manage data at the package level for all e-resources in that package.

Integration among multiple platforms is vital to an ERM system providing both efficiency and complete e-resource management. Our system benefits from integration with tools such as EBSCONET E-Package Renewals, a system that reduces the renewal process for collections of licensed e-journals to hours instead of weeks. The data related to e-journal packages renewed through E-Package Renewals is automatically updated in ERM Essentials, aiding in simple e-resource management through integration among our web-based tools.

It can be difficult to update multiple systems with the same information, which requires staff time and effort. As a result, many information providers are creating knowledge bases that assure customers information is accurate and updated regularly. Once data is updated, it is pushed either to customers or to systems for use. For reliable e-resource data within an ERM, the data should be automatically populated for the customer, avoiding manual processes as much as possible. To be completely effective, the e-resources data along with customer data should be shared among multiple platforms as a result of multi-system integration.

Potential to evolve

In order for an ERM system to continue to address the growing needs of e-resource management, it must evolve with the e-resource landscape. A next-generation ERM should address not only e-resource management needs from simple collection maintenance but also handle complex reporting and analysis needs. Additional releases should continue to introduce advanced functionality and address new challenges as they arise. For instance, SUSHI recently emerged as an important new protocol for harvesting large groups of COUNTER-compliant

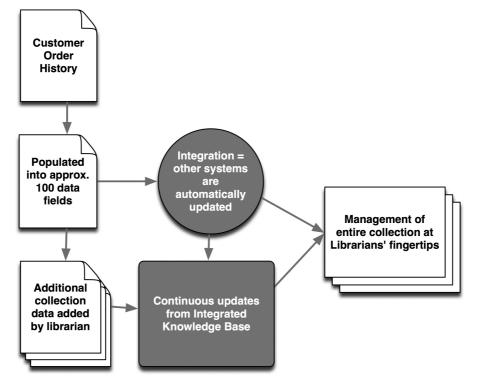


Figure 1. Next-generation ERM flow chart

usage statistics from various publishers and vendors. An ERM system must plan to work with SUSHI to ensure that librarians have the data they need to make informed e-resource decisions.

Manually collecting usage reports and analyzing usage statistics across an e-resource collection can be tedious and time-consuming. We are planning for a usage consolidation module that will add another layer of functionality to our ERM system, leveraging cost and other data maintained in ERM Essentials to analyze how the library's collection is being used. The usage consolidation module will allow for importing COUNTER-compliant usage reports, a process that can be automated through the SUSHI protocol; the COUNTER usage data can then be combined with other statistics such as inter-library loan and document delivery to provide

in-depth analysis for more informed collection decision-making.

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